

# The Impact of Foreign Direct Investment and Import, Export on the Economic Growth of Pakistan: An Empirical Study

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## Abstract

**Purpose:** The aim of this paper is to analyze the impact of foreign direct investment (FDI), export (EXPO) and import (IMP) in the economic growth of Pakistan from 1990 to 2015.

**Design/methodology/approach:** The link of foreign direct investment (FDI), export (EXPO) and import (IMP) with economic growth is measured through multiple regression model. Foreign direct investment (FDI), export (EXPO) and import (IMP) treated as regressors and gross domestic product (GDP) treated as regressand in this model. Eviews software used to analyze the annual time series data from 1990 to 2015.

**Findings:** According to the findings, there is a negative and insignificant association between foreign direct investment (FDI) and GDP while there is significant and positive relationship found of export (EXPO) and import (IMP) with GDP.

**Originality/value:** The empirical findings of this research play a vital role for policy maker of Pakistan in formulation of FDI and trade policies.

**Keywords:** Foreign direct investment, export, import, GDP, economic growth.

**Paper type:** Research Paper.

## 1.Introduction:

Foreign direct investment (FDI) is the most important type of investment and its impact on economic growth is positive. Thomas *et al.*, (2008) argued that FDI plays an important role to increase productivity, technology and makes firms innovative. This is the main reasons that developing countries like Pakistan focus on FDI. Developing countries filling the investment and saving gap by FDI. FDI enhance the productivity and create competition (Kobrin, 2005; Le and Ataullah 2006). There should be easy and flexible policies regarding FDI. Researchers have mixed point of view about the impact of FDI on economic growth. Pakistan has not got more FDI and their proper utilization to increase economic growth rather than opened its doors for FDI (Le and Ataullah, 2006). Foreign Direct Investment (FDI) plays an extraordinary role in globalization and provide new market, production and financing facilities. For a host country it provides capital, products, organizational techniques, technology, accounting for cross border investment and strong impetus to economic growth.

Foreign direct investment (FDI) in developing countries like Pakistan make possible the employment and development of natural and human resources, to enhance innovative businesses practices, in sense of management and marketing, and reduce the budget deficit. One other benefit of Foreign direct investment (FDI) is that it contains the regulations and risks of outside debt and adds value to the human resource through on the job training. For developing countries such as Pakistan that face a insufficient expertise of capital and technological advancement generally experience slower growth than those that do. According to numerous studies, foreign direct investment (FDI) serves as a means of move of technology and knowledge (Dunning & Hamdani 1997). The day to day increasing population rate in Pakistan increased the demands and needs. To meet the needs and requirement of population government of Pakistan focused on imports to meet the local economy business needs. Similarly, the consumers of Pakistan purchased products at high rate due to high import rate that is resulted of low production. Exports of a country consider an indicator of economic development. It has been widely observed that exports and economic growth positively correlated.

Thus, management authorities usually encourage expansion in exports. Economic theory states that expansion in export positively impact on economic growth that facilitate the exploit of economies of scale, and enhance efficiency through competition (Bhagwati and Srinivasan, 1979; Krueger, 1980; Helpman and Krugman, 1985). Exports increase long-run growth to the economy to specialization with economies of scale in those sectors that arise from research and development (R&D), human capital or learning by doing, (Romer, 1987). Agriculture products, industrial goods, hosiery products, garments, cloth, fabrics and many other items which are excess in Pakistan are major exports of Pakistan (Mahmood & Niazi, 1992). Economic growth considers the powerful locomotive pull the people out of the poverty and raises their living standard. Poverty and life standard of a country's population depends upon Gross Domestic Products (GDP) of the country. Fluctuation in the Gross Domestic Products brings fluctuation in the price, inflation, employment and other economic factors in the country. Gross Domestic Product depends upon on different economic factors such as Import, Export, Foreign Direct Investment, political conditions, foreign debt, and government policies. After the Second World War most countries raise their standard, as a result the living standard of their people raise with the increase in

the production and technology.

Due to the different socioeconomic conditions, economic growth may be different in under developed and developed countries. Likewise, Pakistan having all natural resources but still backward. Today, Pakistan's economy needs funds for various sectors like energy, telecom sector, infrastructure sector and education sector and many other related sector that are directly linked with the economic growth (Aizenman & Noy, 2006). With the passage of time, Pakistan's economy is shifting into established economy (Mahmood & Niazi, 1992). Hence, in this study we identify the impacts of some economic factors like imports of goods & services, exports of goods & services and foreign direct investment on the economic growth in Pakistan.

The main purpose of the study is to check the relationship between foreign direct investments, import export with economic growth of Pakistan. For this goal think about survey of distinctive papers and reason that either FDI has positive effect or negative effect on financial development of home countries. Additionally, measure the relationship among import export and foreign direct investment in Pakistan and also analyze the relationship between FDI, import, export and economy of Pakistan. In this section divide the paper into five parts. The first section contains an introduction, second literature review, third methodology and data analysis and fifth on conclusion and recommendation.

## 2. Literature review:

Different studies have been published on the matter of the impact of FDI, import and export on the economic growth but most of the studies have been published on international level related to developed countries but in this study the literature review is related to three macroeconomic factors foreign direct investment, import, export with the economic growth of both developed and developing countries.

Mahembe & Odhiambo (2016) held the study on the topic of does foreign direct investment effect economic growth a case of SADC countries and concluded that the relationship which exists between foreign direct investment and GDP is dependent on the level of income. In this study the researcher divides SADC countries into two parts low level income and medium level income countries and originates that the SADC countries do not hold foreign direct investment in the long run and the researcher used panel data from 1985 to 2012 for findings.

Rehman (2016) examined the study in the context of Pakistan on the topic of foreign direct investment and GDP and found that foreign direct investment depends on the high rate of economic growth but in real this is not true relationship between these and also found that some macroeconomic indicators are the special participants of the economic growth but some have negative relation with GDP like as human capital. For these results the researcher used new technique vector error correction model for analysis.

Chen & Chen (2016) took the study in the context of China on the topic of the impact of foreign direct investment on urban-rural income inequality and found that foreign direct investment has influence on China economic growth in two ways one is in China urban-rural income inequality reduce due to employment creation and second is foreign direct investment plays part for raising the inequality due to international trade in rural-urban income inequality for this finding the researcher used E-views software on 30 provinces data from 1987 to 2010.

Malik (2015) investigated the study on the impact of FDI on economic growth of Pakistan after applied the different techniques Durbin Watson test, regression analysis, co integration analysis and correlation on the secondary data from 2008 to 2013 and found that foreign direct investment, trade openness are positively connected with economic growth of Pakistan then other variables which have negative relation with economic growth.

Najaf (2015) conducted the study and found that foreign direct investment and economic growth connected positively with each other and showing significant relationship and also found that there is inverse relationship between inflation and economic growth. To obtain these results the correlation and regression techniques applied on 33 years secondary data.

Ahmed et al (2014) held the study on the topic of FDI, Export, Import of goods and services and economic growth of Pakistan and found that all these variables play very important role in the economic growth of Pakistan and also found that these three variables have significant relation with GDP of Pakistan after applied E-views software on secondary data which has been taken from different websites of 23 years and applied different techniques on the data for analysis augmented dickey fuller test, granger causality test, descriptive statistics and co-integration.

Cambazoglu et al (2014) examined the study and found that foreign direct investment has positive influence on economic growth of Turkey both inward foreign direct investment and outward foreign direct investment the researcher found these results after used data from 1980 to 2010 and applied auto regression model technique on this data and also found that import, export also positively connected with the economic growth of Turkey. Younus et al (2014) investigated the study in the context of Pakistan and found that foreign direct investment positively connected with the economic growth of Pakistan and also found that foreign direct

investment is a best source for increasing the domestic investment and export of the country for getting these results the researcher used secondary data from 2000 to 2010 for analysis and technique applied on these data simultaneous equation method.

Achchuthan(2013) analysis the affliction among macroeconomic determinants and economic growth in the context of srilanka and originate that both import and export are strongly connected with each other and these two variables has significant relationship with economic growth of srilanka for finding these results the researcher used E-views software for 40 years annual data and also used regression analysis technique for findings.

Enu et al(2013)investigated the study in the context of Ghana on the topic of impact of FDI on economic growth and found that there is a long term significant relationship between exports and GDP in Ghana and also found that with the using of johansen,s co integration technique both short run and long run correlation be present between real GDP,FDI, export and import in Ghana for these finding the researcher also used granger causality test, error correction model and test NormalisedCointegrating Coefficients.

RAMZAN, (2013)took the study on this topic the impact of FDI on Pakistan economic growth and originate that after applied the technique Auto regressive distributed Leg on secondary data from 1976 to 2010 there is no any long run relationship exist between GDP (dependent) FDI and export (independent) variables he also found that foreign direct investment and export not producing fruitful results for economy due to short run relationship.

Muhammad Adnan Hye, (2012) conducted the study in the context of china on this topic export, import and economic growth with the using of new technique auto regressive distributed lag and Phillips perron unit root test and found that long run affiliation among import, export and economic growth and export pay very important role for strengthen the economic growth of china and import negatively connected with economic growth of china due to these findings the constructed hypotheses has been true, for these results the researcher used panel data from 1978 to 2009.

Arshad & sc Economics, (2012) conducted the study on the topic of impact of FDI on trade and economic growth of Pakistan and found that foreign direct investment insignificantly connected with gross domestic products and imports and exports are directly connected with GDP and researcher also found that FDI has no any influence on domestic investment in the long run for finding these results the vector auto regression analysis technique is used on secondary data sample from 1985 to 2005.

Zaman, Shah, Mushtaq Khan, & Ahmad,(2012) held the study in the context of Pakistan on the topic of macroeconomic determinants determining foreign direct investment impact and originated that there is long run positive relationship between economic growth and foreign direct investment and also found that foreign direct investment has negative impact on GDP cause of low quality human capital for finding these results the researcher used error correction model for short run relationship and johansen co integration technique is used for finding long run relationship among variables these techniques applied on 28 years annual data which has been collected from different websites.

Taghavi, Goudarzi, Masoudi, & Gashti, (2012) examined the import, export and economic growth in Iran over the period 1962-2011.The part of the import and fare factors in the test of financial development yield co incorporation investigation is underlined, empowering one to test for the cases coordinate long run relationship, round about long run relationship, and drive, reaction work amongst fare and import and monetary development. The experimental outcomes confirmed a long run connection between the factors considered. In light of results, import had positive association with monetary development in long run. Additionally import had a huge and negative association with economic development at that point import had negative impact on financial development in long haul.

Srinivasan, Kalaivani, & Ibrahim, (2011) utilized vector error correction model to analyze the causal nexus amongst FDI and financial development in South Asian Association for Regional Cooperation (SAARC) nations for the years 1970-2007. Causality tests demonstrated a long-run bidirectional causal connection amongst GDP and FDI for every one of the nations aside from India. For India, the test outcomes demonstrated a restricted long run causal connection from GDP to FDI.Andraz & Rodrigues, (2010) conducted the study on this topic what causes economic growth in Portugal export or inward foreign direct investment? And found that after applied the unit root test, co integration and causality test on secondary data from 1977 to 2004 that both variables foreign direct investment and export are pay important part in economic growth of Portugal and both are co-integrate Gudaro, Chhapra, & Sheikh, (2010)held the study on this topic impact of foreign direct investment on economic growth in the context of Pakistan and found that there is positive relationship between foreign direct investment and gross domestic product and also found that inflation is negatively associated with GDPfor getting these results the researcher used yearly based data from 1981 to 2010 and technique used for analysis multiply regression models.

Duttaray, Dutt, & Mukhopadhyay, (2008) inspected the causality amongst FDI and economic development for 66 creating nations utilizing Toda and Yamamoto (1995) time arrangement testing strategies, and discovered that out of 30 African nations, FDI was not influencing development in 20 nations. A current paper by Zhang et

al. (2014) inspected the effect of FDI on GDP development in Sub Saharan Africa (SSA), with specific accentuation on Chinese FDI for the period 2003-2010, utilizing dynamic GMM board estimation strategies. The paper finds that neither FDI net inflows into SSA nor Chinese FDI significantly affected financial development in SSA (Zhang et al. (2014:257)Atrkar Roshan (2007) examined the study in the context of Iran on the topic of export linkage to economic growth and found that significant relationship between oil export and economic growth with the applied technique augmented dickey fuller test on the time series data from 1970 to 2001 and also found that manufactured exports can be ply very important role in the future on the economic growth.

#### Methodology:

##### Research Design

Positivism, critical and interpretive these are three types of research which are used in research process. positivism type used in this paper because it is a quantitative research which is based on numerical data.

##### Population and Sample Design:

The targeted population of our research was Islamic economic growth of Pakistan .the sample of the study GDP, IMPORT, EXPORT, and FDI over the period of 1990 to 2015.

##### Data analysis Techniques:

EvIEWS -10 student versions are used for perform tests Descriptive, correlation, and regression on data.

### 3. Research model:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \epsilon$$

$$Y (\text{GDP}) = \beta_0 + \beta_1 (\text{FDI}) + \beta_2 (\text{IMP}) + \beta_3 (\text{EXP}) + \epsilon$$

In the equation Y exposing dependent variable (GDP) and  $\beta_0$  is expressing constant value of gross domestic product and  $\beta_1$  showing foreign direct investment of the country in US (\$) dollars  $\beta_2$  is showing total import of the country of 26 years time period  $\beta_3$  is also exposing total export of the country of 26 years which has great impact on economic growth and at the end of the research model  $\epsilon$  is expressing the random error.

Here is clearly defined the research model:

**GDP** = Gross domestic product (dependent variable)

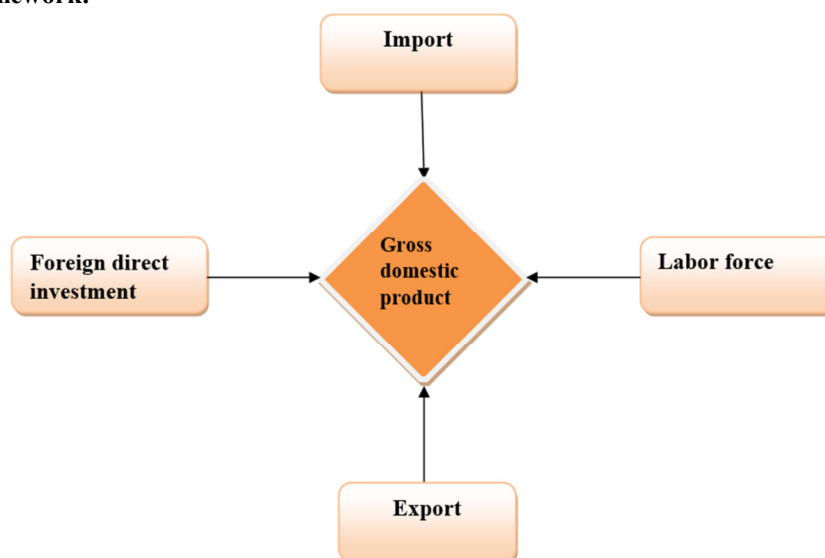
**FDI** = Foreign direct investment (independent variable)

**IMP** = Import (Independent variable)

**EXP** = Export (Independent variable)

$\epsilon$  = Random error

**Conceptual framework:**



### 4. ESTIMATION RESULT: DESCRIPTIVE ANALYSIS

Variables	Mean	Minimum	maximum	Std.Dev
<b>GDP</b>	1.39	2.17	7.99	4.13
<b>FDI</b>	1.15	0.36	3.67	0.89
<b>IMP</b>	2.77	1.62	3.91	6.77
<b>EXP</b>	1.66	2.46	7.56	5.57

The above table shows the descriptive statistics of the data. The average value of GDP is 1.39 minimum

value is 2.17 and maximum value is 7.99 which shows the range of data. The standard deviation of GDP is 4.13 which shows the deviation of value from mean. The average value of FDI is 1.15 minimum value is 0.36 and maximum value is 3.67 which shows the range of data. The standard deviation of FDI is 0.89 which shows the deviation of value from mean. The mean value of IMP and EXP is 2.77 and 1.66 respectively. The minimum value is 1.62 and 2.46 while maximum value is 3.91 and 7.56 respectively. The standard deviation of IMP and EXP 6.77 and 5.57 respectively which shows the deviation of value from mean.

#### CORRELATION MATRIX

	GDP	FDI	IMP	EXPO
GDP	1			
FDI	0.19	1		
IMP	0.86	0.57	1	
EXP	0.93	0.35	0.90	1

The above correlation matrix shows that there is minimum correlation is 0.19 between GDP and FDI while maximum correlation value is 0.93 between EXP and GDP whereas no value more than 0.90 which means that there is no exact correlation among variables so low correlation coefficient means that there is no problem of multicollinearity among variables.

#### REGRESSION ANALYSIS

##### DEPENDENT VARIABLE: GDP

DEPENDENT VARIABLE: GDI				
Variables	Coefficient	Std.Error	t-statistic	Prob.
C	-4.69	1.22	-0.38	0.70
FDI	-1.47	3.73	-3.92	0.00*
IMP	3.38	1.07	3.14	0.00*
EXP	4.02	1.14	3.52	0.00*
R-squared				0.925003
F-statistic				90.44785
Prob(F-statistic)				0.000000

Significance level: 5%\*

$$\text{GDP} = -4.69 - 1.47\text{FDI} + 3.38\text{IMP} + 4.02\text{EXP} + \varepsilon$$

The empirical result of estimated equation of proposed model explained by above table. The slope coefficients of regressor foreign direct investment(FDI), have negative impact on gross domestic product (GDP) and import (IMP) and export(EXP) in multiple regression model have positive impact on gross domestic product (GDP). The slope coefficient explained that one percent change in FDI,IMP and EXP will bring -1.46%,3.37% and 4.02% respectively change in gross domestic product (GDP). The estimates IMP and EXP are positive and highly significant. The FDI is negative but significant to GDP. The R-square is 0.925 means that 92% variation in GDP is explained by FDI,IMP and EXP and 8% is unexplained by FDI,IMP and EXP. The value of F is too high 90.44 and value of P 0.000 so small shows that overall model is fit and result not by chance.

#### 5.CONCLUSION:

This paper examines the impact of foreign direct investment and import, export on the economic growth of Pakistan. The overall result depicts the positive and significant relationship between mostly independent and dependent variable. Our research findings indicate that foreign direct investment (FDI) negatively relate to economic growth of Pakistan **that contradict the prior literature which shows that foreign direct investment positively increase the GDP and economic growth of a country.** The result also prove that export growth increase the GDP growth and in this way overall economic growth increase of a country. Based on overall findings both export and import have a positive significant impact on GDP and economic growth. In the supportive way, Usman, Ashfaq and Mushtaq (2012) prove that export has significant effect (influence) on the economic growth of Pakistan. Furthermore Kogid, Mulok, Ching, Lily, Ghazali and Loganathan(2011) found that import also indirect significant positive relationship with economic growth. So we concluded that authorities should more focus on (trade openness) export and import rather than on foreign direct investment. By consequence, these may have a positive influence on the productivity of the economy.

#### POLICY RECOMMENDATIONS:

Our findings are likely to frame some policy implications. The regression results shows that an increase in foreign direct investment(FDI) has negative and export import have positive impact on growth rate of Pakistan. Hence the authorities should positively focus on maximum utilization of resources to increase trade openness in order to increase GDP and economic growth rate.

- The exports promotion incentives should determine to specialize the economy accompanied by the scale



benefices.

- The exports may stimulate the country to import high-value inputs, products and technologies.
- National policies should be orientated towards the trade openness reinforcing liberalization of recent decades. In fact, there is a general consensus the importance of reducing barriers to international trade openness.
- Quality of trade openness should be matter of concern because increase openness not guaranteed without quality of trade openness.
- There should be business friendly environment in a country to enhance productivity and openness.
- There should be economic reformation to enhance trade openness with quality in the economy of Pakistan.

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